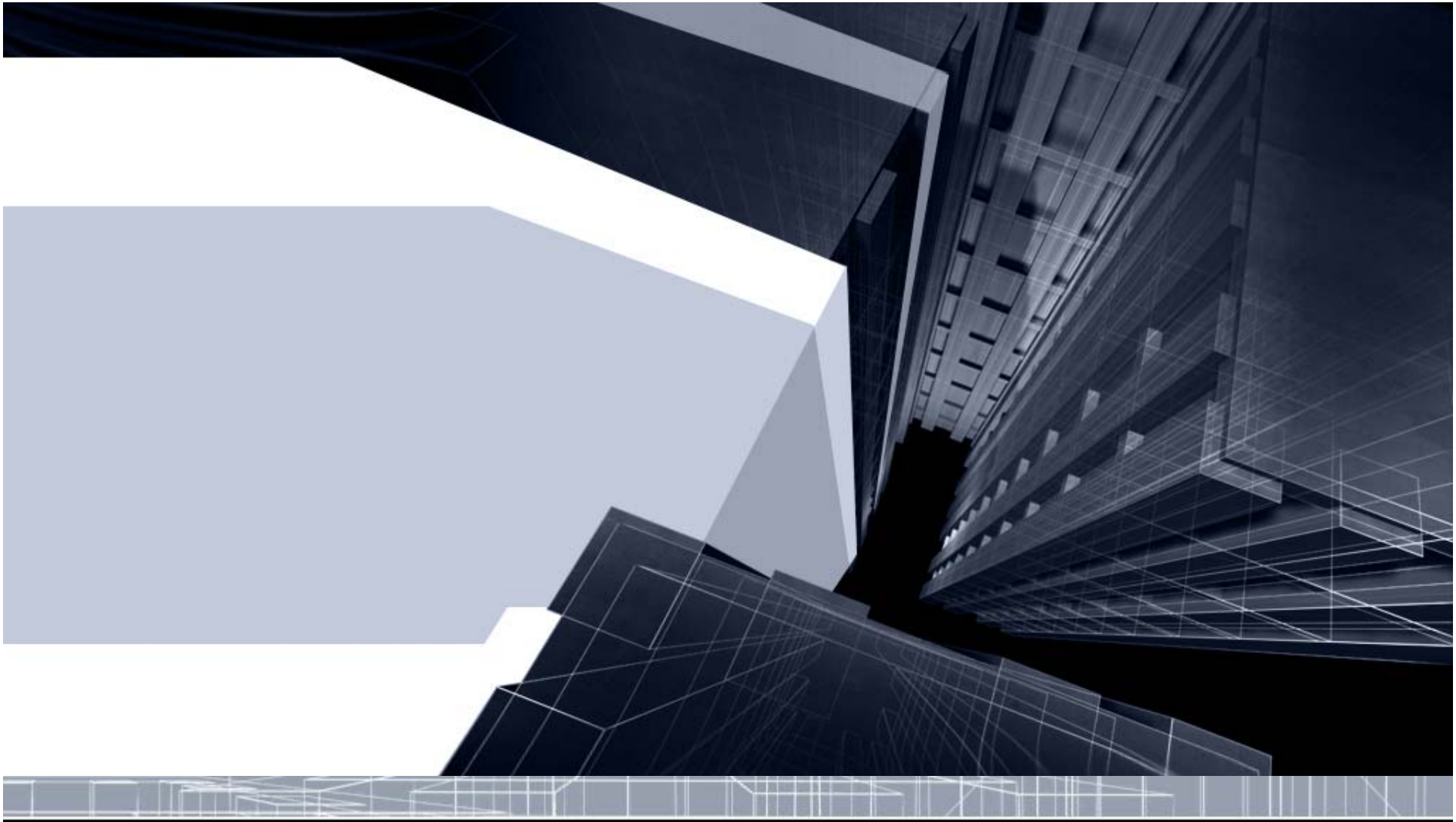


Stationary Fuel Cells

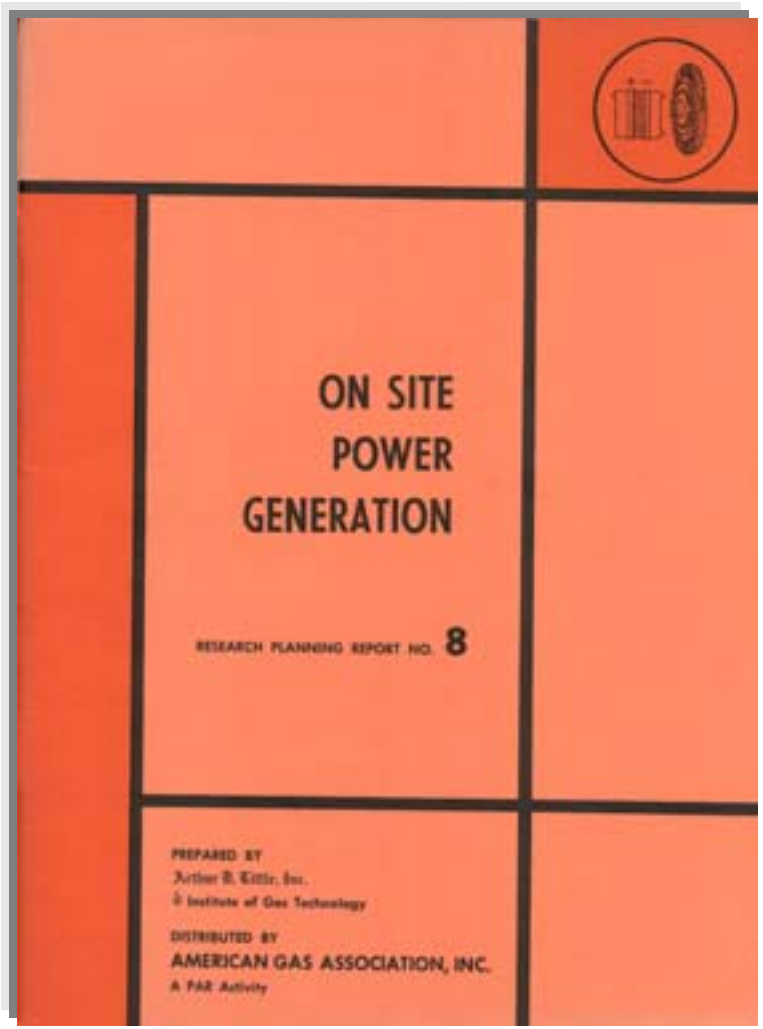
Ronald Fiskum

Energy Consumer Choice

"… one of the several promising opportunities that we're working on for consumers to manage their peak load requirements is the use of combined heat and power systems in buildings. These systems couple natural gas fired distributed generation, such as microturbines, recip engines, and fuel cells, with thermally activated cooling and humidity control equipment to meet a building's energy and indoor comfort needs. There happens to be a national test facility for these devices only 15 miles from here at the University of Maryland. There are other examples from our existing portfolio including the integration of solar energy devices and buildings, industrial power systems, and electricity storage devices for power quality."

David Garman, Assistant Secretary
Energy Efficiency and Renewable Energy

Reminiscing & Reputation: According to AGA in September 1966



Onsite power generation offers a promising way for the gas industry to participate in the growing electric energy market. Gas energy onsite power systems can compete with purchased power in residential, commercial, and industrial applications. This ability will improve as the technology of energy conversion develops and the use of onsite power becomes better understood. Although first costs of fuel cells are not yet clearly defined, it is presently projected that production fuel cells can be built for approximately $100 per kilowatt.

Assessment

- Where it the PEM technology today?
- How close is PEM to a viable product?
- Where are the GAPs?

What the Future Holds

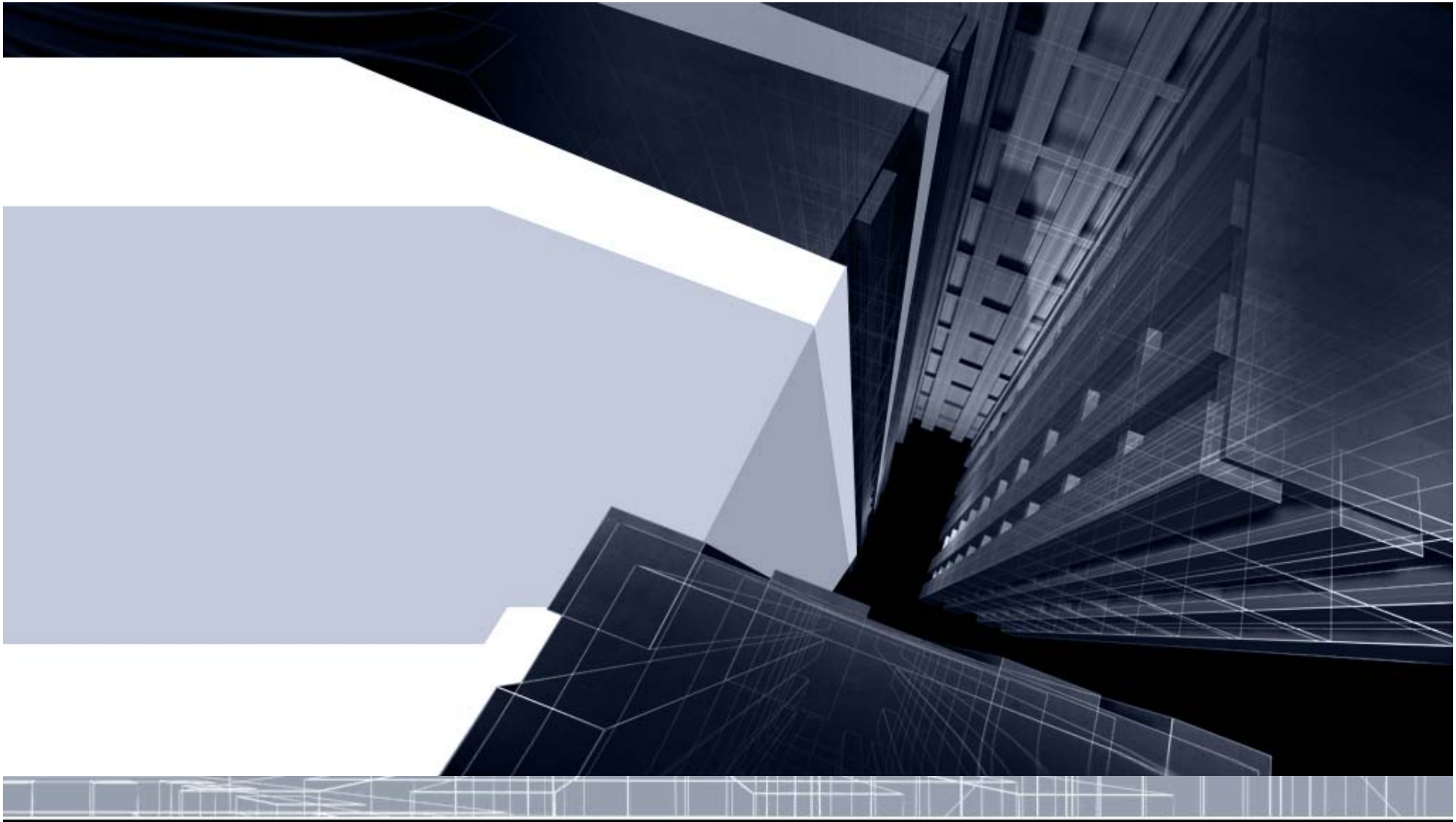
- What will it take to close these GAPs?
  - Programs
  - Money
  - Time
- When should we tell policy makers, wall street and the general public we are launching real products?
- What other stationary fuel cell technologies should we consider: solid oxide, alkaline, etc.?

Exciting Times

- These are exciting times for development of stationary fuel cells.
- If America will transition to a H_2 economy, it will be across a bridge of stationary fuel cells.
- Before FreedomCARs will roll across our highways, FreedomPOWER will light our buildings.
- However, it all begins today with planning.

Our Request

- Listen carefully, think strategically, be thoughtful, and work hard the next day and one half.
- Create the best and most realistic vision for a public/private partnership in stationary fuel cells.



Thank You